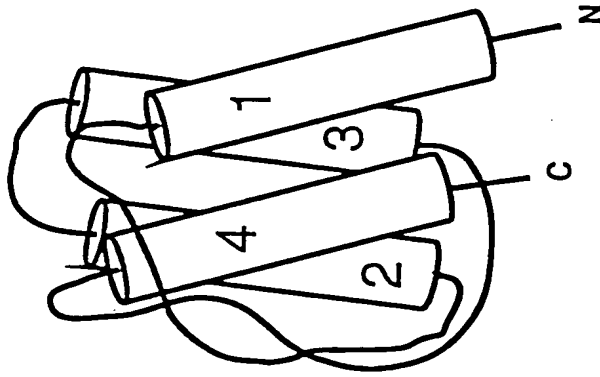


Native Protein



Sequence Rearranged Protein

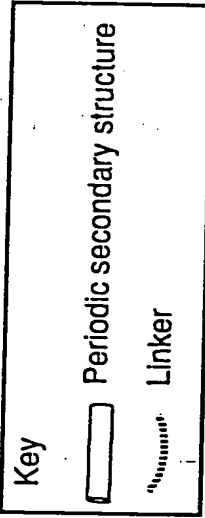
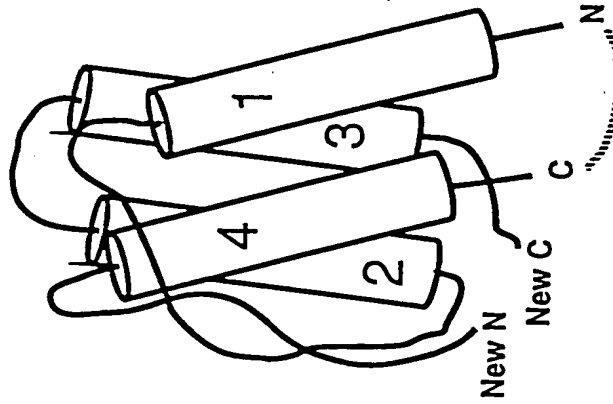
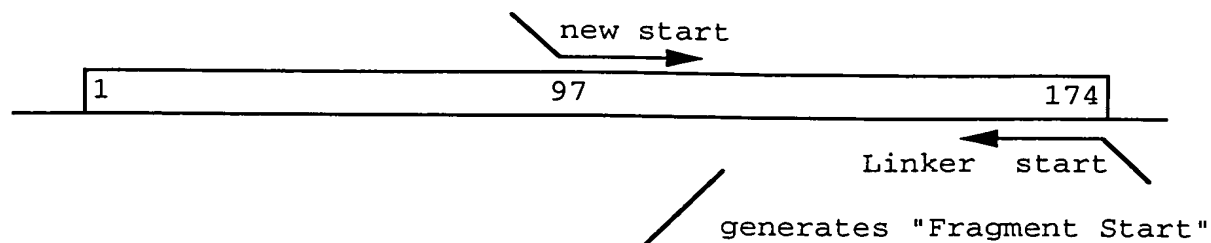
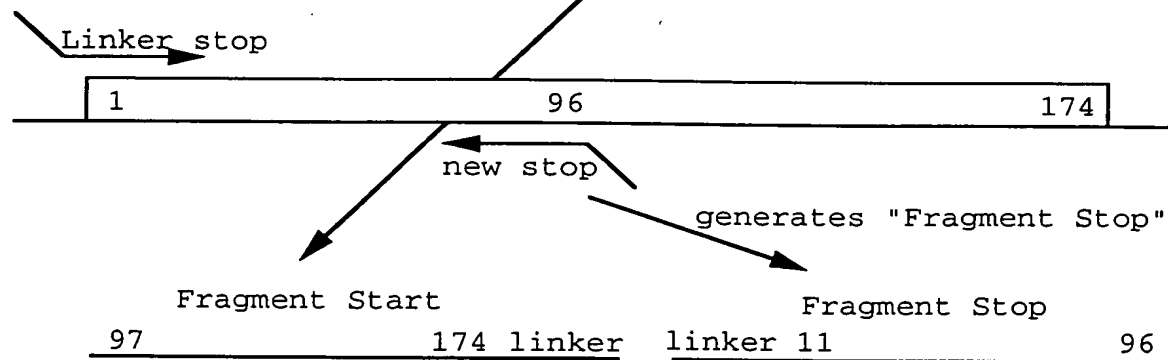


Figure 1

first step PCR amplification



second step PCR amplification



third step PCR amplification

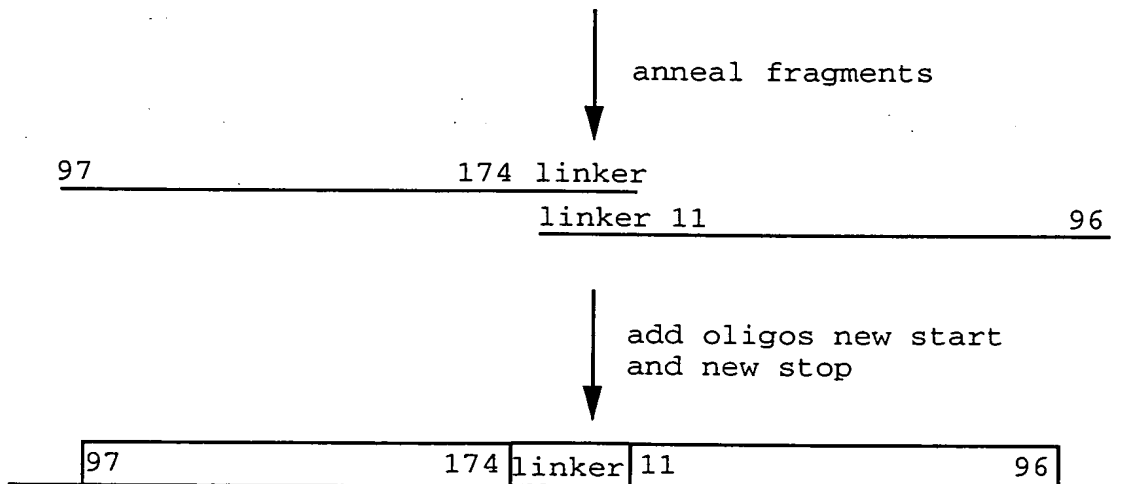


Figure 2.

26T20T"45645680

03654954-102197
267207-45645680

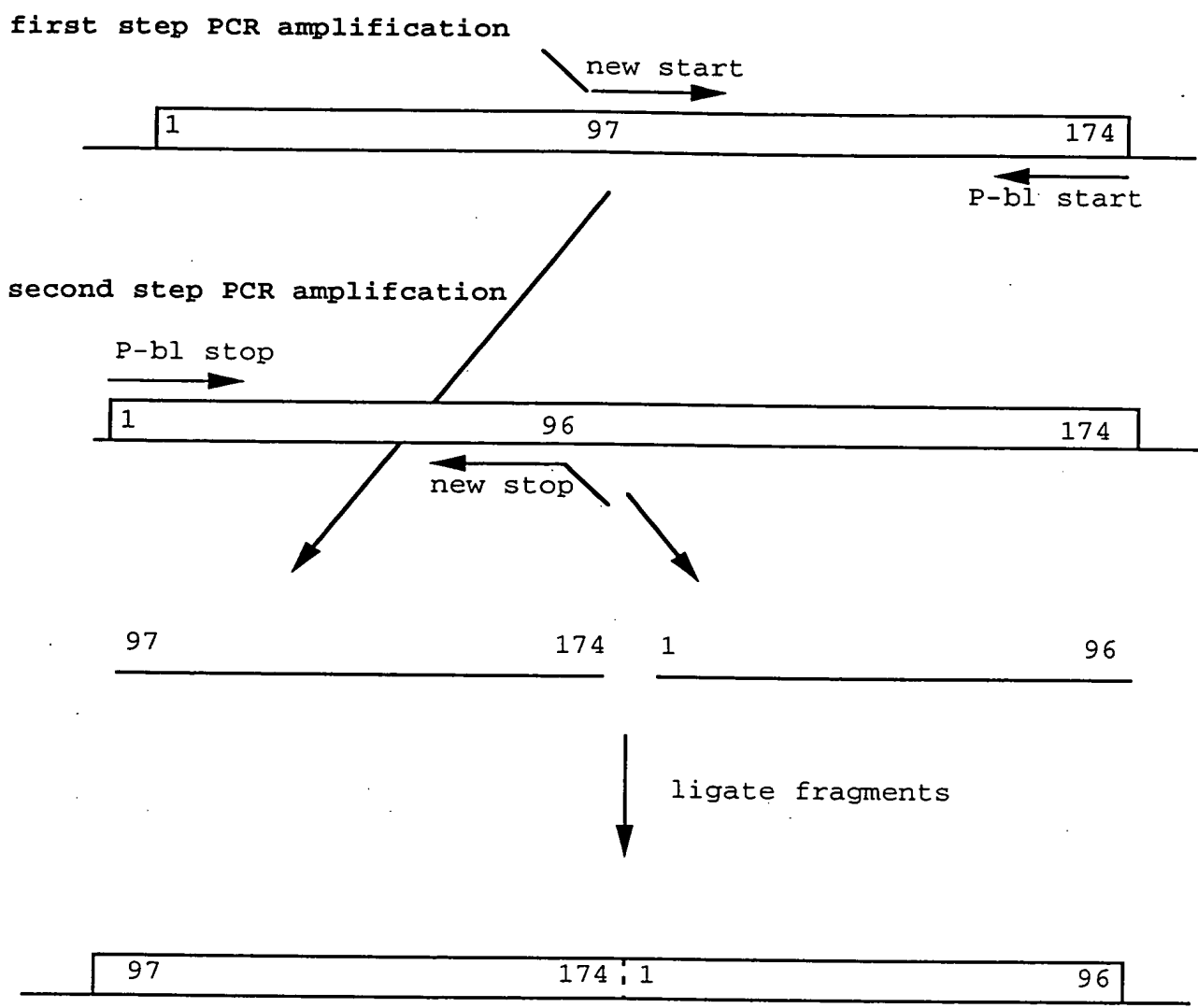
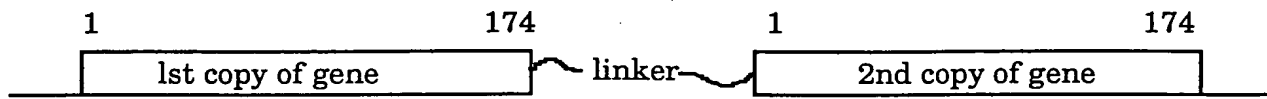


Figure 3.

I. Construct tandemly-duplicated template



II. PCR-amplify tandemly-duplicated template

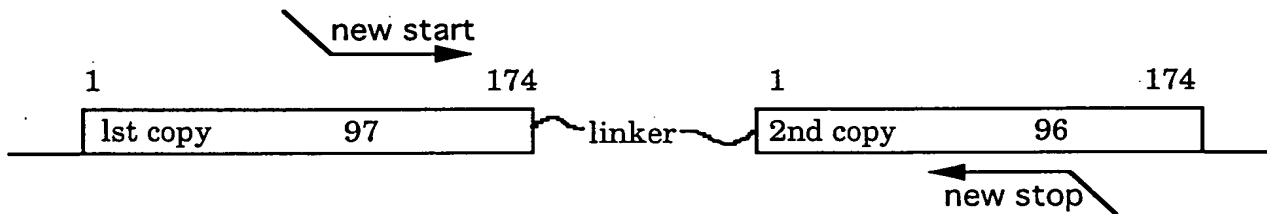


Figure 4.

GCCCCACCACGCTCATCTGTGACAGCCGAGTCCTGGAGAGGTACCTCTTGGAGGCCAAG
 1 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 60
 CGGGGTGGTGGCGAGTAGACACTGTCCGGCTCAGGACCTCTCCATGGAGAACCTCCGGTTC
 AlaProProArgLeuIleCysAspSerArgValLeuGluArgTyrLeuLeuGluAlaLys
 GAGGCCGAGAATATCACGACGGGCTGTGCTGAACACTGCAGCTTGAATGAGAATATCACT
 61 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 120
 CTCCGGCTCTTATAGTGCTGCCCCGACACGACTTGTGACGTCGAACTTACTCTTATAGTGA
 GluAlaGluAsnIleThrThrGlyCysAlaGluHisCysSerLeuAsnGluAsnIleThr
 GTCCCAGACACCAAAGTTAATTTCTATGCCTGGAAGAGGATGGAGGTGCGGCAGCAGGCC
 121 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 180
 CAGGGTCTGTGGTTTCAATTAAAGATACGGACCTTCTCCTACCTCCAGCCCGTCGTCCGG
 ValProAspThrLysValAsnPheTyrAlaTrpLysArgMetGluValGlyGlnGlnAla
 GTAGAAGTCTGGCAGGGCCTGGCCCTGCTGTGCGAAGCTGTCCTGCGGGGCCAGGCCCTG
 181 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 240
 CATCTTCAGACCGTCCCGACCGGGACGACAGCCTTCGACAGGACGCCCCGGTCCGGGAC
 ValGluValTrpGlnGlyLeuAlaLeuLeuSerGluAlaValLeuArgGlyGlnAlaLeu
 TTGGTCAACTCTTCCAGCCGTGGGAGCCCCCTGCAGCTGCATGTGGATAAAGCCGTCAGT
 241 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 300
 AACCAGTTGAGAAGGGTCGGCACCCCTCGGGGACGTCGACGTACACCTATTTCCGCAGTCA
 LeuValAsnSerSerGlnProTrpGluProLeuGlnLeuHisValAspLysAlaValSer
 GGCTTCGCAGCCTCACCACTCTGCTTCGGGCTCTGGGAGCCCAGAAGGAAGCCATCTCC
 301 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 360
 CCGGAAGCGTCGGAGTGGTGAGAGGAAGCCCCGAGACCTCGGGTCTTCCTTCGGTAGAGG
 GlyLeuArgSerLeuThrThrLeuLeuArgAlaLeuGlyAlaGlnLysGluAlaIleSer
 CCTCCAGATGCGGCCTCAGCTGCTCCACTCCGAACAATCACTGCTGACACTTTCCGCAAA
 361 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 420
 GGAGGTCTACGCCGAGTCGACGAGGTGAGGCTTGTTAGTGACGACTGTGAAAGGCGTTT
 ProProAspAlaAlaSerAlaAlaProLeuArgThrIleThrAlaAspThrPheArgLys
 CTCTTCCGAGTCTACTCCAATTTCTCCGGGGAAAAGCTGAAGCTGTACACAGGGGAGGCC
 421 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 480
 GAGAAGGCTCAGATGAGGTTAAAGGAGGCCCTTTCGACTTCGACATGTGTCCCCTCCGG
 LeuPheArgValTyrSerAsnPheLeuArgGlyLysLeuLysLeuTyrThrGlyGluAla
 TGCAGGACAGGGGACAGATGA
 481 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 501
 ACGTCCTGTCCCCTGTCTACT
 CysArgThrGlyAspArg

Figure 5

46T20T"45645680